ABSTRACT

Disclosed is a heat exchanger of plate fin and tube type, which includes a plurality of fins 1 stacked at given intervals to one another, and a plurality of heat exchanger tubes 2 penetrating the fins 1 in the fin-stacking direction. The heat exchanger is designed to perform a heat exchange between fluids flowing, respectively, inside and outside the heat exchanger tubes 2, through the heat exchanger tubes 2 and the fins 1. Each of the fins 1 is provided with a plurality of cut-raised portions 3 with a bridge shape having leg and beam segments. The cut-raised portions 3 associated with each of the heat exchanger tubes 2 are formed substantially only in a region of the fin satisfying the following relationship.

$$Ws = (1 - \varphi)Dp + \varphi D$$

$$\varphi > 0.5$$

Ws is a spread width of the cut-raised portions in a direction (column direction) extending along an end of the fin on the upstream side of the second fluid. D is an outer diameter of the heat exchanger tube. Dp is an alignment pitch of the heat exchanger tubes in the column direction.